

## Response of wild *solanum* rootstocks to root-knot nematode (*Meloidogyne incognita* Kofoid and White)

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### SUMMARY

A study was carried out under glass house condition at the Department of Nematology, Tamil Nadu Agricultural University, Coimbatore during 2012-2013 to identify resistant rootstocks of *Solanum* species for grafting of tomato against root knot nematode, *Meloidogyne incognita*. Seven wild *solanum* rootstocks and one *Physalis* wild rootstock and two tomato F<sub>1</sub> hybrids were screened against the root knot nematode. The experiment was conducted in a completely randomized block design with three replications. The seedlings of the wild rootstocks and tomato hybrids were maintained in pots filled with sterilized soil under glasshouse condition and inoculated with *Meloidogyne incognita* @ two second stage juveniles per gram of soil after 15 days of planting. Sixty days after inoculation, the plants were evaluated for shoot length, root length, shoot fresh and dry weight as well as root fresh and dry weight, number of galls per 10 gram of root, egg mass and females per gram of root, root knot index, soil nematode population per 200 cc of soil and reproduction factor. Less number of galls and egg masses were observed in *Solanum sisymbriifolium* followed by *Physalis peruviana* and *Solanum torvum* rootstocks exhibited resistant reaction. Among tomato F<sub>1</sub> hybrids, TNAU tomato hybrid CO-3 showed moderately resistant reaction. *Solanum violaceum* and tomato hybrid US-618 were highly susceptible to *M. incognita*.

**Key Words :** *Solanum* rootstocks, Tomato, Root knot nematode resistance, *Meloidogyne incognita*

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